

Success Stories

Data to Action: Following Shoreline Surveys

Watershed Associations and Stream Teams have taken action following Shoreline Surveys of their rivers and brooks. Stream Teams have demonstrated a broad array of ways to provide stewardship for their streams.

The first action is always to report problems to municipal officials. At times this reporting results in mitigation; other times, it is a first step in creating a partnership for improving conditions of the streams.

If the municipality chooses to take no action, the stream team may tackle the problem as one of their own short term remediation projects. Short term actions are ones that can be completed in a few months; long term actions require several stages and steps from planning to implementation before environmental conditions improve.

This list is only a sampling of completed work. Note that achievements are categorized under the seven goals of the Massachusetts Watershed Initiative.

GOAL: Water Quality Restoration and Protection

Blackstone River Watershed

Miscoe Brook Stream Team established a quarterly water quality monitoring project to report and remedy problems and to establish a baseline.

Tatnuck Stream Team's task force brought together airport and Worcester public works staff to remove sedimentation originating from Airport Hill.

Ararat Brook Stream Team reported a pollution site on city park land to Worcester public works staff which resulted in an interagency investigation.

Buzzards Bay Watershed

Hands Across the River reported a spill from a tanker operation.

Charles River Watershed

A member of the *Lower Charles River Basin Stream Team* compiled Shoreline Survey data into a report on pipes. This update was shared with state and federal agencies.

Ipswich River Watershed

Fish Brook Stream Team is working with the Essex Conservation District to remediate erosion problems.

A golfing member of the *Friends of the Miles River* talked with local golf courses about how management practices may affect water quality.

The *Headwaters Stream Team* is photographing streams in Wilmington to help the Conservation Commission determine whether streams are intermittent or perennial under the Massachusetts Wetlands Protection Act.

Merrimack River Watershed

The *Little River Explorers* found a blocked sewer pipe that routed sewage directly into the Little River. Haverhill city employees, members of the Stream Team, immediately removed the blockage and sewage was rerouted to the wastewater treatment plant.

The *Friends of the Powwow River* continue to work closely with the Amesbury Lakes and Waterways Committee to protect and restore the river.

Shawsheen Stream Teams completed its 1997 water quality monitoring program, and used the Shoreline Survey results to locate sites for testing and to help assess the findings.

Mount Hope Bay Watershed

After completing several Shoreline Surveys (including a pipe survey) and water quality testing on the Runnins River, the

Pokanoket Watershed Association helped target failing septic systems, prompted state and local investment in stormwater retrofits, and discovered and reported oil leakage from a "tank farm."

Mystic River Watershed

Friends of the Mystic River reported a leaking pipe (smelling of sewerage) to the Massachusetts Water Resources Authority. The MWRA closed the pipe and redirected sewage to sewer lines.

After completing their Shoreline Survey Action Plan, the *Alewife / Mystic River Advocates*, and the Somerville Department of Public Works (with support from the Riverways Urban Rivers Program) applied for and received a 319 nonpoint source program grant from the Department of Environmental Protection (DEP) to identify and remediate urban storm water pollution.

Both the *Alewife / Mystic River Advocates* and the Medford/*Friends of the Mystic River* Shoreline Survey Reports and data sheets were reviewed by DEP staff. Due to the number of pipes discharging in dry weather, DEP plans to work with the groups to update the pipe survey and reduce discharges.

Neponset River Watershed

Canton River Watershed Watchdogs completed intensive temperature sampling on the Canton River (East Branch of the Neponset River) to further investigate high temperatures that DEP found during the assessment year.

The *Mother Brook Coalition* reported pipes with polluted discharges to the town and the EOEA Environmental Strike Force. The company remediated the problem and joined the Coalition.

After the *Mother Brook Coalition* reported trash from the transfer station and earth from an expanded grave yard in the brook, the selectmen created a buffer zone to prevent further degradation.

Urban Neponset Monitors alerted the Neponset River Watershed Association (NepRWA) to a foul-smelling pipe. NepRWA tested the discharge and reported high fecal coliform counts to the Boston Water and Sewer Commission, who closed the pipe.

North Coastal Watershed (Salem Sound 2000)

The *Sawmill Brook Stream Team* (Manchester Coastal Water Quality Task Force) worked with the town to check suspicious pipes and deposits in the river, lobbied the town to sweep winter sand from the streets earlier in the spring, and is conducting fecal coliform tests to pinpoint problems.

The *Sawmill Brook Stream Team* (Manchester Coastal Water Quality Task Force) has purchased and placed five "Pooper Scooper Pickup" dispensers at waterfront dog walking areas.

Parker River Watershed

The *Headwaters Stream Team* is working with the town

public works staff to map storm drains, and may undertake a storm drain stenciling project to raise public awareness of the brooks and ponds.

Saugus River Watershed

Using Shoreline Survey and water quality monitoring data, the *Saugus River Watershed Council* has leveraged town funding to assess the condition of sewer infrastructure.

SuAsCo River Watershed

Hop Brook Protection Association reported an informal dump to a local streamside business. Management removed the dump and thanked the group for handling the problem in a sensitive manner.

Town officials stopped parking asphalt trucks on the banks of the brook thanks to an alert by the *Hop Brook Protection Association*.

The *Framingham Advocates for the Sudbury River* reported areas of intense eutrophication to the town Conservation Commission and Selectmen.

As a high priority item of the *Maynard/Assabet River Initiative's* Action Plan, the Maynard Conservation Commission required Bursaw Oil Company to (1) remove old oil tanks; (2) test and remediate soils prior to property sale.

The *Fort Pond Brook Stream Team* and the *Nashoba Brook Stream Team* reported problems to town officials. Town consultants added the sites to a database that is under development as part of a pilot pollutant loading and trading study for a planned wastewater treatment plant.

GOAL: Water Quantity and Flow Protection

Ipswich River Watershed

Ipswich River Stream Teams (Headwaters Stream Team and Reading/North Reading Stream Teams) held walks to highlight the dry river bed. More than 80 citizens, town officials, legislators, Environmental Affairs Trudy Coxe, and other state officials were in attendance. The Stream Teams held follow up walks in the winter and spring to show seasonal changes in flow conditions.

Reading / North Reading Stream Team installed a staff gauge to monitor river levels.

The *Headwaters Stream Team* is providing input to their town sewer board to limit transfer wastewater (and recharge) out of the watershed.

The *Reading / North Reading Stream Team* is working on a xeriscape (low-water) lawn public education signage at a church property located in the center of town. They are also encouraging the town to not water lawns on town properties.

During the *Reading / North Reading Stream Team's* river adoption ceremony before the Reading Board of Selectmen, the Selectmen asked the Stream Team to provide them with guidance and input as the town considers its water supply and water conservation.

Parker River Watershed

The *Parker River Headwaters Stream Team* (with support from the Parker River Clean Water Association) received a grant from New England Grassroots Environmental Fund to support the development of their action plan and to monitor flow in the river headwaters.

GOAL: Habitat Protection

Blackstone River Watershed

Miscoe Brook Stream Team is pursuing an Area of Critical Environmental Concern nomination in order to add a layer of protection for the brook's special ecosystem.

Charles River Watershed

The *Charles River Lower Basin Stream Team* identified several riparian habitat areas that they recommended be included in the Metropolitan District Commission's (MDC) Charles River Master Plan. They identified a new infestation of water chestnuts near the Eliot St. bridge. They plan to work with the MDC in the future to prevent the invasive plant from taking hold in the lower basin. Up river, the water chestnuts are so thick that the Watertown Yacht Club hires a harvester just to cut a path for their boats.

The *Charles River Lakes District Stream Team* reported many shopping carts to the local Stop 'n' Shop, which then removed the carts.

Merrimack River Watershed

Friends of the Powwow River supported Amesbury's request for a grant from Eight Towns and the Bay to assess the lower Powwow River for riparian habitat. As a result, the Chair of the Friends of the Powwow was appointed by Amesbury to represent the town at Eight Towns on the Bay, a Mass Bays Program Local Governance Committee.

Neponset River Watershed

Several members of the *Friends of the Neponset Estuary* participated in the Smelt Stewards Program supported by the Riverways Program and the Division of Marine Fisheries (DMF). Volunteers recorded daily readings from a mechanical gauge installed by the US Geological Survey to measure water levels. DMF used this data to evaluate flows needed by rainbow smelt for spawning.

The *Friends of the Neponset Estuary* have become a source of local biological expertise in reviewing projects and producing a habitat surveys in support of land protection.

The *Friends of the Neponset Estuary* successfully lobbied for Mass Highway Department to redesign the Adams Street Bridge in order to protect smelt habitat and the ACEC.

North Coastal Watershed (Salem Sound 2000)

Babbling Brook Stream Team (with support from Salem Sound 2000) received a \$2500 grant from the Conservation Commission and a \$3000 grant from DEM Greenways to stabilize and revegetate a bank damaged by clear cutting and dredging.

The *Manchester Coastal Water quality Task Force* worked to get the dam at the end of Sawmill Brook lowered so that rainbow smelt could swim upstream to spawn.

Parker River Watershed

The *Parker River Headwaters Stream Team* assists the *Parker River Clean Water Association* in conducting a yearly alewife count to assess population trends. The Stream Team made it possible to extend the count to the Pentucket Pond dam in Georgetown, which is the last barrier to the fish before the headwaters spawning ponds. As a result of this attention to the alewife run, the Conservation Commission checked with the Division of Marine Fisheries before approving construction to the Rock Pond boat ramp, or to the Pentucket Pond dam, during the alewife breeding season. The Stream Team is concerned that the fish are swimming directly up the spillway (with difficulty), ignoring a temporary plywood fish ladder. When the nearby road culvert is rebuilt, the Stream Team will make sure that a well-constructed fish ladder is included.

The *Parker River Headwaters Stream Team* worked with the newly-formed Save Pentucket Pond Committee to convince the pond group that dredging was not necessarily the solution to the pond's water quality and flow problems. They also sought Conservation Commission permission to hand-pull exotic milfoil from around the boat ramp.

GOAL: Open Space and Riparian Land Protection

Fore River Watershed

Fore River Watershed Association mapped ownership of parcels for open space acquisition.

Ipswich River Watershed

Fish Brook Stream Team supported town purchase of three properties along Fish Brook.

Nashua River Watershed

Unquety Brook Stream Team supported the town's application for Self Help funds from EOE's Conservation Services. The Town of Dunstable received funds to purchase 2000 feet along the stream at Monroe farm.

SuAsCo Watershed

The 1996 *Maynard / Assabet River Initiative* Action Plan was incorporated in Maynard's 1997 Open Space and Recreation Plan.

The *Maynard / Assabet River Initiative* identified the Bursaw Oil Company Property as the last remaining potential access to the Assabet River in the stretch between Maynard and Hudson. This access would include green belt land, canoeing access and would link to the Assabet River Rail Trail. The town is working to acquire the property in the near future.

The *Acton Stream Teams* (Fort Pond and Nashoba Brooks) created a new web page describing their Shoreline Survey results and providing stewardship tips. Look them up at www.ultranet.com/~oar/stream.

GOAL: Recreation

Blackstone River Watershed Association

Miscoe Brook Stream Team is working with scouts to maintain trails in the watershed. At a Silver Lake Day Celebration, fifty children participated in a "Learn to Fish" Program that was made possible by the Division of Fisheries and Wildlife. Activities included canoe rides provided by Blackstone River Valley National Heritage Corridor, Watershed Model Demonstrations and a "ponding exploration" conducted by the Massachusetts Audubon Society.

Mystic River Watershed

Alewite / Mystic River Advocates used their Shoreline Survey Action Plan to raise money for their educational Mystic River Run.

Neponset River Watershed

Hawes Brook Stream Team cleared stream trash, planted trees and repaired a blocked dam and sluiceway leading from Hawes Brook to two manmade ponds just in time for fishing season.

Working with the Boston Natural Areas Fund Greenway Council, *Neponset Urban Monitors* successfully worked in Milton to bring a positive vote for a multi-use path along the river.

Mother Brook Coalition used their Action Plan to help raise money for kiosks and trail planning.

Shawsheen River Watershed

Lower Shawsheen Stream Team led local citizens and town officials on a tour of the Shawsheen River in downtown Andover which has tremendous potential for a trail.

SuAsCo Rivers Watershed

Hop Brook Protection Association worked on trail and bridge maintenance with the Conservation Commission and supported grant applications with information from their survey.

Westfield River Watershed Association

Westfield River Watershed Association received a grant to complete their proposed river walk.

GOAL: Capacity Building

Blackstone River Watershed

Miscoe Brook Stream Team has forged partnerships with town boards, land trust, state representatives to implement the action plan.

Charles River Watershed

Many of the people who participated in the Shoreline Survey for the Lower Charles Basin went on to participate in the Charles River Master Planning process through the MDC.

Ipswich River Watershed

Reading / North Reading Stream Team members are participating in Conservation Commission meetings to support and encourage them to utilize full protection of the River Protection Act.

Board members of the Ipswich River Watershed Association take the leadership roles developing each of the Stream Teams. As a result, board members have put their energy and vision in helping their stream team solve specific problems. This model has potential to strengthen watershed association boards, increase their understanding of the tributaries, and create strong ties to the Stream Teams.

Neponset River Watershed

The Shoreline Survey Action Plans of the *Neponset River Stream Teams* became part of the Basin Team's comprehensive Five Year Action Plan.

Hawes Brook Stream Team wrote a successful town meeting warrant article to hire a part time paid conservation agent to offer better protection to natural resources.

Canton River Watershed Watchdogs were influential in the passage of a Groundwater Protection District bylaw.

North Coastal Watershed (Salem Sound 2000)

The *Sawmill Brook Stream Team* (Manchester Coastal Water Quality Task Force) received a \$5000 grant from a local flyfishing tournament to help them in their efforts to protect coastal water quality by preventing upstream pollution.

The *Babbling Brook Stream Team* (Marblehead) has joined forces with the Marblehead Environmental Coalition to host a volunteer stream side planting as part of the bioengineering project.

Parker River Watershed

Parker River Clean Water Association gained two board members from the Little River Stream Team.

Shawsheen River Watershed

The Shoreline Survey Action Plans of the *Shawsheen Stream Teams* became part of the Basin Team's comprehensive Five Year Action Plan.

GOAL: Outreach & Education

Blackstone River Watershed

Miscoe Brook Stream Team in collaboration with the Blackstone Valley Regional Vocational Technical School produced a resident's guide describing practices to protect the resources of Miscoe Brook. The guide was mailed to all residents in the watershed.

Charles River Watershed

National Public Radio carried a story about the Charles River Lower Basin's Shoreline Survey on Morning Edition. The story described the incredible spawning of blueback herring observed by the surveyors and pointed out the ecological value of an urban river.

The Charles River/Cutler Park to Commonwealth Avenue Protection Group adopted their portion of the Charles River at the CRWA's Run of the Charles Canoe race, thereby adding a citizen advocacy slant to this fun event.

Ipswich River Watershed

Three Stream Teams made presentations to their Selectmen as part of their Adopt-A-Stream adoptions -- *Headwaters, Reading/North Reading* and *Fish Brook*. They presented the Selectmen with their action plans, and asked for support in protecting the water resources in their towns.

The *Headwaters Stream Team* and *Reading/North Reading Stream Team* are hosting a series of ongoing nature walks along the river in the Reading Town Forest, a river reach that periodically goes dry.

Ipswich River Headwaters Stream Team is working with the Wilmington Schools on river education projects supported by a \$10,000 Community Service Grant. The Stream Team will be organizing a canoe trip on the river for the students.

The *Reading/North Reading Stream Team* hosted a river clean up this spring.

Friends of Fish Brook in conjunction with the Essex Conservation District, led a lawn care workshop for 70 residents.

Merrimack River Watershed

The *Friends of the Powwow River* are joining with the Amesbury schools and Lowell's Boat Shop to support a student group, the *Powwow River Keepers* in exploring the river using historic dories that the students built with Lowell's Boat Shop.

Mount Hope Bay Watershed

Pokanoket Watershed Association used an EPA grant to develop an effective education slide show about the Runnins River which they have taken to town boards, garden clubs, civic events.

Mystic River Watershed

Alewife/Mystic River Advocates and the *Medford/Friends of the Mystic River* received a grant from REI to publish their Shoreline Survey/Action Report. They have each sponsored clean ups along the Mystic River.

Neponset River Watershed

Canton River Watershed Watchdogs sponsored a scout group to conduct a Shoreline Survey on Pequit Brook and sponsored clean ups on the Canton River and its tributaries.

The *Mother Brook Coalition* sponsored clean ups in Dedham and Hyde Park and involved businesses in creating Kiosks for the Mother Brook Corridor.

North Coastal Watershed (Salem Sound 2000)

Babbling Brook Stream Team student partners at the Marblehead Charter School held a mock Conservation Commission meeting to learn about the process and activities of the Commission.

Saw Mill Brook Stream Team (Manchester Coastal Water Quality Task Force) invited residents to a midnight smelt watch on a newly reopened run. They sponsored a clean up, a second Shoreline Survey as part of Manchester's Natural Resources Day, and hosted a booth to publicize their Shoreline Survey at the town's sidewalk sale in July 1997.

Parker River Watershed

As a result of an interest in waterfront landscaping (buffer strips) identified by the *Parker River Headwaters Stream Team*, the Parker River Clean Water Association created a display for the Greater Newburyport Garden Show (4000-5000 people attended). The display, entitled "Our Gardens, Our Rivers" showed the connection between landscaping and rivers by describing nonpoint source pollution, water use and the importance of vegetated buffers.

Saugus River Watershed

The *Saugus River Watershed Council* worked with students from the Belmont Middle School on their Shoreline Survey. Students found debris from a wool remanufacturing facility. After removing the debris, the SRWC reported the problem to the Board of Health who spoke with the company. There has been no reappearance of the problem. The Council removed 12 tons of debris in three hours during Coastsweep 97. They sponsored and trained inner city youths from ROCA - YouthStar to survey Rumney Marsh and follow with clean-ups.

Shawsheen River Watershed

Middle Shawsheen Stream Team worked with the Town of Billerica to create and apply storm drain stencils. They created and funded 5000 copies of a pamphlet that discusses the harmful impacts of dumping grass clippings and yard wastes into rivers, and describes specific disposal alternatives.

Upper Shawsheen Stream Team distributed information about composting to discourage abutters of the river from dumping yard wastes into the river and its banks.

SuAsCo River Watershed

Hop Brook Protection Association, *Maynard/Assabet River Initiative* and the *Acton/Assabet River Stream Teams* formed steering committees to educate and involve town officials in the Shoreline Survey process.

Hop Brook Protection Association presented their Shoreline Survey/Management Plan to town officials at the Sudbury Annual Town Officials Forum.

Taunton River Watershed

The *Canoe River Aquifer Advisory Committee* presented copies of its Shoreline Survey Report to town boards in Sharon, Foxborough, Easton, Mansfield and Norton and to their state representatives.

Westfield River Watershed

Westfield River Watershed Association sponsored and trained students at the Duffy School to conduct a Shoreline Survey on a tributary of the Westfield River.

Adopt a Stream

The Adopt-A-Stream/Riverways Programs staff of the Department of Fisheries, Wildlife & Environmental Law Enforcement has created a Shoreline Survey Process to develop and train stream teams and existing watershed associations in conducting surveys that lead to action plans and long time stewardship. Adopt-A-Stream Program staff has worked with groups in 20 of our 27 watersheds. Requests for Shoreline Survey support should be directed to Joan Kimball, Adopt-A-Stream Program at 617-727-1614 x 384 or E-mail at joan.kimball@state.ma.us.